Hon. William K. Reilly,

Co-Chair, National Commission on Energy Policy

Testimony Before

U.S. House of Representatives Committee on Science

February 9, 2005

Rayburn Office Building (Room 2318)

Good afternoon Chairman Boehlert. My thanks to you and to the Members of the Committee for organizing this hearing on a matter of great importance for our country.

I am one of three co-chairs of the National Commission on Energy Policy. My other Co-chairs are John Rowe, CEO of Excelon, and John Holdren, a professor at the Kennedy School at Harvard. We are an independent bi-partisan group of 16 persons who came together in 2002 with support from the Hewlett Foundation and several other leading foundations: The MacArthur Foundation, Packard Foundation, and the Pew Charitable Trusts. The Commission released a report at the end of last year entitled *Ending the Energy Stalemate: A Bipartisan Strategy to Meet America's Energy Challenges*. The first Chapter of this report is about enhancing oil security. The placement of oil security first among all issues reflects the Commission's view that improving our nation's oil security is the most significant near term energy challenge we face. I'm pleased to have an

opportunity to summarize the Commission's recommendations on vehicle fuel economy.

Consistent with the focus of this hearing, I will direct the bulk of my remarks to the Commission's proposals to significantly increase vehicle fuel economy. However, I must note that try as we might, our Commission could not construct a plausible scenario in which U.S. and global oil demand does not increase over the next twenty years. For this reason, we also propose a series of measures designed to increase the global production of oil during this same time period. I will submit our entire report and ask that it be made part of the record.

Rationale for Action

From the Commission's perspective, there are three considerations that reinforce the need to strengthen passenger vehicle fuel economy:

FIRST, both domestic and global demand for oil is projected to grow by roughly 50% by 2025. This rate of growth is at more than double the historical rate since 1980 (Figure 1-1). At the same time, spare capacity to compensate for supply disruptions has fallen to a mere 2% of global demand. Left unchanged, these factors suggest that the U.S. economy will continue to suffer from high and volatile oil prices and is at risk of more frequent and serious supply disruptions. The energy sector has for several years experienced a consistent and growing gap between oil production and the discovery of replacement reserves.

SECOND, the rate of improvement in U.S. oil economic intensity has slowed in recent years. Oil economic intensity is a measure of how much oil is required for the U.S. economy to produce a dollar of economic output. This measure is important because the ability of the U.S. economy to weather oil price shocks improves as oil's share of our economic output decreases. Since 1970, the U.S. oil economic intensity has dropped by half -- a tremendous achievement -- largely due to CAFE standards in the late 1970s and early 1980s, and to a shift in the electricity sector away from the use of petroleum. Further improvements would further insulate the U.S. economy from oil price shocks (Figure 1-2).

THIRD, hybrid and passenger diesel vehicles hold the promise for dramatic improvements in vehicle fuel economy. But historical trends suggest that potential fuel economy gains may be undermined unless government acts to reinforce the need for improved vehicle fuel economy.

Although U.S. fuel economy has been stagnant sine 1987, the vehicle industry has made considerable strides in efficiency. However, these efficiency improvements have been used to increase vehicle horsepower and weight, while still complying with Corporate Average Fuel Economy (CAFE) standards. This trend-- favoring horsepower, weight and other attributes over fuel economy improvements -- is likely to continue absent government action. If we as a nation are serious about addressing our dependence upon oil, we must seize the

opportunity presented by hybrids and passenger diesels (Figure 1-3) to improve the fuel economy of our vehicle fleet.

The Importance of Strengthening Fuel Economy Standards

During its deliberations, the Commission considered a variety of both major and minor transportation policy measures. These included many of the usual suspects: a gasoline tax, a CAFE increase, alternative fuels, as well as some new ideas: heavy-duty tractor trailer fuel economy, efficiency standards for replacement tires, congestion charges in urban areas. We examined these policy measures against four criteria: (1) the ability to save one million barrels per day of oil by 2025, (2) the cost per barrel of oil saved, (3) administrative complexity, (4) political feasibility. Of all the policies reviewed by the Commission, passenger vehicle fuel economy improvements represented the largest opportunity for oil savings over the next 20 years.

Accordingly, the Commission recommended that Congress instruct the National Highway Traffic Safety Administration (NHTSA) to significantly strengthen CAFE standards, giving due consideration to vehicle performance, safety, job impacts, and competitiveness concerns consistent with statutory requirements. We recommended that new standards be phased in over a five-year period beginning no later than 2010. The Commission did not reach agreement on a specific increase in fuel economy.

Of course, it would be naïve to make recommendations about a CAFE increase without considering how to break the current political stalemate on fuel economy standards. The Commission identified three issues that have dominated past debates about raising CAFE standards and which we believe are largely responsible for the current stalemate: (1) uncertainty over impacts on the competitiveness of domestic manufacturers; (2) fear that more stringent standards will lead to smaller, lighter vehicles and increased traffic fatalities; and (3) concerns that higher standards will lead to losses in domestic jobs.

Competitiveness and U.S Jobs

To address concerns about competitiveness impacts on U.S. domestic manufacturers and U.S. auto workers, the Commission recommends that a significant increase in CAFE standards be accompanied by reforms to the current program that would increase compliance flexibility and reduce compliance costs, together with manufacturer incentives designed to promote the domestic manufacture of hybrid-electric and advanced diesel vehicles.

Specifically, the Commission recommends that the current program be altered to allow manufacturers to trade compliance credits with one another and across their car and light truck fleets. The Congressional Budget Office has estimated that this reform alone would reduce the cost of the CAFE program by about 17

percent. An additional reform that should be considered in concert with higher standards is a cost-capping mechanism similar to the “safety valve” the Commission is recommending in connection with a tradable permits system for greenhouse gas emissions. In this case, the government could make additional CAFE compliance credits available to manufacturers at a pre-determined price. Such a mechanism would have the effect of protecting automakers and consumers if the regulatory estimates used to set new standards understate true costs and thus holds promise for overcoming the inevitable and inherently irresolvable disagreements about future technology development that have stymied past CAFE debates.

With respect to manufacturer incentives, the Commission is specifically recommending a program of tax incentives for U.S manufacturing facilities that are re-tooled to produce hybrid-electric and advanced diesel vehicle with superior fuel economy. Consistent with international trade agreements, the incentive would be available to both domestic and foreign companies, including both assembly plants and parts supplies. The recommended subsidy level would total $1.5 billion over ten years, with the amount of credit set to reflect up to two-thirds of the capital investment associated with producing vehicles or vehicle components. Commission analysis indicates that federal outlays under such a program would be more than offset by increased tax receipts as a result of maintaining domestic manufacturing jobs.

Relationship between Safety and Fuel Economy

A paramount concern for us when seeking to improve vehicle fuel economy has been to ensure that there is no reduction in overall vehicle safety. This is the concern so often expressed: That mandating higher fuel economy will require production of less safe, lighter vehicles and compromise vehicle performance. Our Commission considered this concern and tested it against currently marketed hybrid vehicles. Hybrids and passenger diesels offer the potential to boost fuel economy while maintaining vehicle size and performance. The Ford Escape, Honda Civic hybrid, the Honda Accord hybrid, and the forthcoming Toyota Highlander hybrid, all achieve substantial fuel economy improvements *while maintaining or increasing* horsepower (by as much as 17 percent) compared to their conventional counterparts, and without reductions in weight or size. These vehicles clearly demonstrate that substantial fuel economy improvements can be achieved using already-available technologies and without compromising vehicle performance and safety.

Conclusion

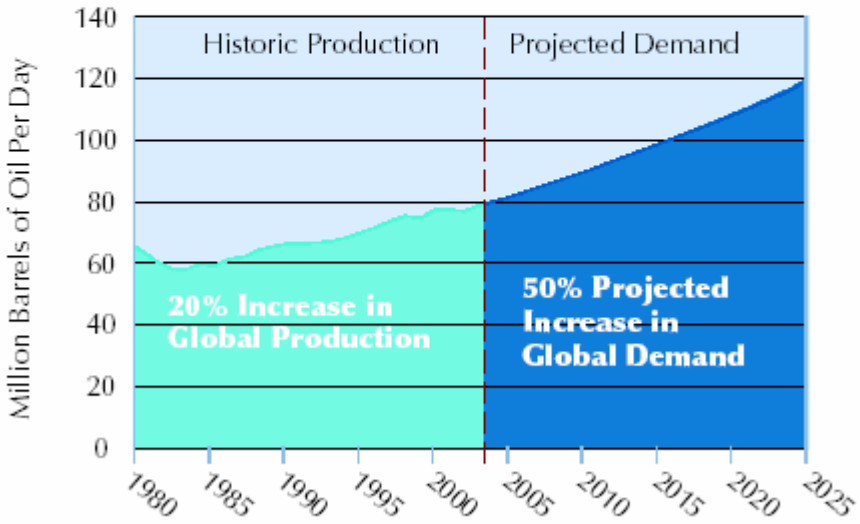
Hybrids and advanced diesels potentially change the game. They offer the uncompromised features of conventional vehicles while improving dramatically automobile fuel economy. It should be national policy to foster early introduction on a significant scale of these technologies for they promise to make a major contribution to U.S. energy security.

Figures from *Ending the Energy Stalemate: A Bipartisan Strategy to Meet America's Energy Challenges*, National Commission on Energy Policy (2005).

Figure 1-1

Trends in Global Oil Production and Future Demand

Future demand for oil is projected to grow at more than double the historical rate since 1980.

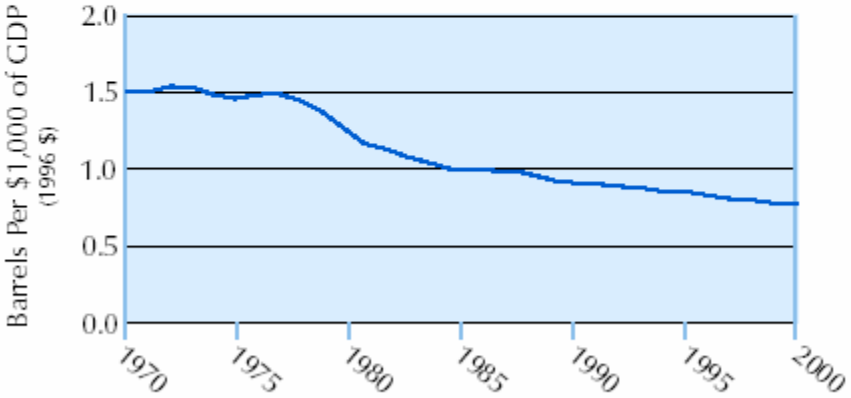


Data Source: Energy Information Administration, 2004

Figure 1-2

Oil and the Economy

The ability of the U.S. economy to weather oil price shocks improves as oil's share of GDP decreases. This share has declined over the past several decades, although the rate of decline has slowed in recent years.

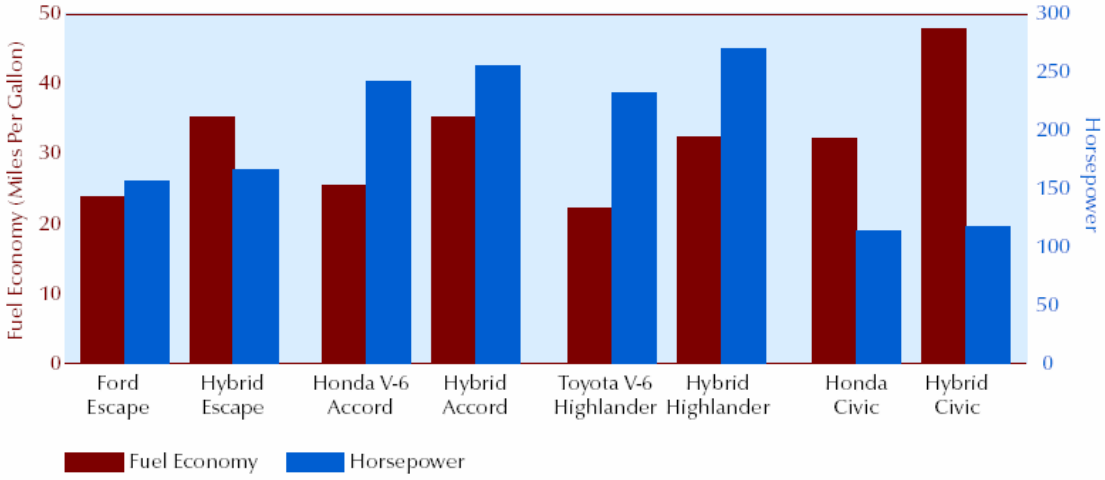


Resources for the Future, 2004

Figure 1-3

Why Hybrids Change the Game

Hybrids can increase fuel economy and horsepower.



Note: The popular Toyota Prius hybrid is not included here because it does not have a conventional vehicle counterpart.

Data Sources: NewCars.com 2004, American Honda Motor Co. 2004, AIC Autosite 2004